

MEMORANDUM

INTERMOUNTAIN POWER SERVICE CORPORATION

PRELIMINARY

TO: George W. Cross
FROM: Dennis K. Killian
DATE: November 4, 2003
SUBJECT: Recommendation to Reduce Platen Extensions

We recommend reducing the platen surface addition by approximately half, to 4 feet in length. After reviewing the impact of the platen extensions on Unit 1, recent operating requirements for temperature control and the historical sensitivity of Unit 2, it is prudent to reduce the addition of platen surface.

We are currently at a final decision point on the exact magnitude of the platen extension surface additions for Unit 2. We have taken another close look at pre- and post- modification superheat attemperation flow, sootblowing patterns and frequencies, air flow practices, LOI and emission impacts, and known response characteristics in Unit 2. All indicators suggest that a less aggressive approach in Unit 2 is warranted.

The basis for the original design point of an additional eight feet of platen length was the marked drop in steam temperature in Unit 2 that was observed during 950MWg performance testing in May of 2002. Not only were the analysis and the models based on this particular unit operational parameters but we also don't want to ignore the anticipated decline in coal quality and the advantages of additional platen surface under these conditions.

Contractual design/performance testing flows were identified as 2.5% O₂ specifically to allow for operational latitude. We are finding that there is a preference to run more toward the 3.0% O₂ levels for, among other reasons, LOI improvements and inferred CO emissions (See recent report to UDAQ). With this relatively small increase in mass flow comes a significant boost in superheat temperature support.

It is apparent from recent operating modes that varying the platen cleanliness factor by just 0.1 to 0.2 in the platens can readily control attemperation spray flows by up to 100,000 lbs/hr on Unit 1. This affect appears to significantly outweigh the

platen surface impact. However, we see no reason to push the surface addition beyond an additional 4 feet.

Combined with the recognized response of Unit 2 to superheat temperature production, the increased furnace sootblowing requirements, the attemperation requirements since the spring outage, the temperature stability and achievement of emissions goals on Unit 1, moderation of the platen surface addition appears reasonable. BPI, the boiler modifications designers have notified us today that this can be accomplished without impacting the outage if a decision is made immediately.

JHN: